We Claim:

1. A data output controller that controls interaction between an information apparatus and a selected output device in connection with the selected output device rendering data content accessed from the information apparatus, comprising:

means for managing a communication channel between the information apparatus and the selected output device;

means for providing to the information apparatus over the communication channel at least one attribute associated with the selected output device and one or more device-dependent software components for enabling the data content to be rendered by the selected output device; and

means for receiving over the communication channel data content conformed at least in part with the at least one attributes; and

means for providing the at least partly conformed data content to the selected output device to be rendered.

2. The controller of claim 1 in which the at least one attribute is provided over the communication channel in response to the at least one attribute being identified as not available on the information apparatus.

3. The controller of claim 1 further comprising means for providing over the communication channel one or more output device driver components enabling the data content to be rendered on the selected output device.

4. The controller of claim 3 in which the one or more output device driver components are provided over the communication channel in response to the one or more device driver components being identified as not available on the information apparatus.

5. The controller of claim 1 in which the one or more components include software code.

6. The controller of claim 1 in which the one or more components include a software application.

7. The controller of claim 1 in which the one or more components relate to

one or more of a device driver, a printer driver, an output driver, or a user interface.

8. The controller of claim 1 in which the attribute associated with the selected output device relates to one or more of device identification, device make, device model, device type, device input data format, device input language, device feature set, device specifications, device quality of service, device type of service, device availability of service, and device service fee, device authentication, device security, device resolution, device bit depth, device color space, device number of colors, device color table, and a device halftoning table.

9. The controller of claim 1 further comprising means for searching for the information apparatus and establishing the communication channel with it once discovered in the search.

10. The controller of claim A8 further comprising means for broadcasting availability of the selected output device together with the at least one attribute associated with the selected output device.

11. The controller of claim 1 further comprising means for passively awaiting discovery by the information apparatus and establishing the communication channel with the information apparatus once discovered.

12. The controller of claim 1 further comprising means for providing authentication of the information apparatus or its operator.

13. The controller of claim 1 further comprising means for calculating payment for the rendering of the data content by the output device.

14. The controller of claim 1 further comprising means for processing payment for the rendering of the data content by the output device.

15. The controller of claim 1 with a configuration for installation within the output device.

16. The controller of claim 1 with a configuration to be externally connected to one or more output devices.

17. The controller of claim 1 in which the communication channel is a wireless communication channel.

18. The controller of claim 17 in which the wireless communication is a radio communication.

19. The controller of claim 17 in which the wireless communication is an infrared communication.

20. The controller of claim 1 in which the selected output device is a printer.

21. The controller of claim 1 further comprising means for processing and converting the at least partly conformed data content to an output data that is compatible with the selected output device.

22. The controller of claim 1 further comprising means for converting the at least partly conformed data content to an output data that is compatible with one of an output device, a printer, a printer engine, an output engine, a display engine, or a printer controller.

23. The controller of claim 1 further comprising means for performing at least one raster image processing operation.

24. The controller of claim 1 in which the data content corresponds to an output job, the controller further comprising means for queuing and storing one or more output jobs to be provided to the output device.

25. The controller of claim 1 further comprising means for storing one or more components associated with one or more output devices.

26. The controller of claim 1 further comprising means for obtaining authentication information from the information apparatus to authenticate permission for the information apparatus to access the selected output device.

27. A data output controller method that controls interaction between an information apparatus and a selected output device in connection with the selected output device rendering data content accessed from the information apparatus, comprising:

managing a communication channel between the information apparatus and the selected output device;

providing over the communication channel at least one attribute associated with the selected output device and one or more device-dependent

software components for enabling the data content to be rendered by the selected output device; and

receiving over the communication channel data content conformed at least in part with the at least one attribute; and

providing the at least partly conformed data content to the selected output device to be rendered.

28. The method of claim 27 in which the at least one attribute is provided over the communication channel in response to the at least one attribute being identified as not available on the information apparatus.

29. The method of claim 27 further comprising providing over the communication channel one or more output device driver components enabling the data content to be rendered on the selected output device.

30. The method of claim 29 in which the one or more output device driver components are provided over the communication channel in response to the one or more device driver components being identified as not available on the information apparatus.

31. The method of claim 27 in which the one or more components include software code.

32. The method of claim 27 in which the one or more components include a software application.

33. The method of claim 27 in which the one or more components relate to one or more of a device driver, a printer driver, an output driver, or a user interface.

34. The method of claim 1 in which the attribute associated with the selected output device relates to one or more of device identification, device make, device model, device type, device input data format, device input language, device feature set, device specifications, device quality of service, device type of service, device availability of service, and device service fee, device authentication, device security, device resolution, device bit depth, device color space, device number of colors, device color table, and a device halftoning table.

35. The method of claim 27 further comprising searching for the information apparatus and establishing the communication channel with it once discovered in the search.

36. The method of claim 35 further comprising broadcasting availability of the controller together with the at least one attribute associated with the selected output device.

37. The method of claim 27 further comprising passively awaiting discovery by the information apparatus and establishing the communication channel with the information apparatus once discovered.

38. The method of claim 27 further comprising providing authentication of the information apparatus or its operator.

39. The method of claim 27 further comprising calculating payment for the rendering of the data content by the output device.

40. The method of claim 27 further comprising processing payment for the rendering of the data content by the output device.

41. The method of claim 27 in which the communication channel is a wireless communication channel.

42. The method of claim 41 in which the wireless communication is a radio communication.

43. The controller of claim 41 in which the wireless communication is an infrared communication.

44. The method of claim 27 in which the selected output device relates to one of a printing device, a display device, a projection device and an audio output device.

45. The method of claim 27 further comprising processing and converting the at least partly conformed data content to an output data that is compatible with the selected output device.

46. The method of claim 27 further comprising converting the at least partly conformed data content to an output data that is compatible with one of an output device, a printer, a printer engine, an output engine, a display engine, or a printer controller.

47. The method of claim 27 further comprising performing at least one raster image processing operation.

48. The method of claim 27 in which the data content corresponds to an output job, the method further comprising queuing and storing one or more output jobs to be provided to the output device.

49. The method of claim 27 further comprising storing one or more components associated with one or more output devices.

50. The method of claim 27 further comprising obtaining authentication information from the information apparatus to authenticate permission for the information apparatus to access the selected output device.

51. A data output controller that controls interaction between an information apparatus and a selected output device in connection with the selected output device rendering data content accessed from the information apparatus, comprising:

means for managing a wireless communication channel between the information apparatus and the selected output device;

means for providing to the information apparatus over the communication channel at least one component associated with the selected output device for enabling the data content to be rendered by the selected output device; and

means for receiving over the communication channel data content conformed at least in part with the at least one component; and

means for providing the at least partly conformed data content to the selected output device to be rendered.

52. The controller of claim 51 in which the at least one component is provided over the communication channel in response to the at least one component being identified as not available on the information apparatus.

53. The controller of claim 51 in which the at least one component includes software code.

54. The controller of claim 51 in which the at least one component includes a software application.

55. The controller of claim 51 in which the at least one component relates

to one or more of a device driver, a printer driver, an output driver, or a user interface.

56. The controller of claim 51 in which the at least one component relates to one or more of device identification, device make, device model, device type, device input data format, device input language, device feature set, device specifications, device quality of service, device type of service, device availability of service, and device service fee, device authentication, device security, device resolution, device bit depth, device color space, device number of colors, device color table, and a device halftoning table.

57. The controller of claim 51 further comprising means for searching for the information apparatus and establishing the communication channel with it once discovered in the search.

58. The controller of claim 57 further comprising means for broadcasting availability of the selected output device together with the at least one component associated with the selected output device.

59. The controller of claim 51 further comprising means for passively awaiting discovery by the information apparatus and establishing the communication channel with the information apparatus once discovered.

60. The controller of claim 51 further comprising means for providing authentication of the information apparatus or its operator.

61. The controller of claim 51 further comprising means for calculating payment for the rendering of the data content by the output device.

61. The controller of claim 51 further comprising means for processing payment for the rendering of the data content by the output device.

62. The controller of claim 51 with a configuration for installation within the output device.

63. The controller of claim 51 with a configuration to be externally connected to one or more output devices.

64. The controller of claim 51 in which the wireless communication is a radio communication.

65. The controller of claim 51 in which the selected output device relates

to one of a printing device, a display device, a projection device and an audio output device.

66. The controller of claim 51 further comprising means for processing and converting the at least partly conformed data content to an output data that is compatible with the selected output device.

67. The controller of claim 51 further comprising means for converting the at least partly conformed data content to an output data that is compatible with one of an output device, a printer, a printer engine, an output engine, a display engine, or a printer controller.

68. The controller of claim 51 further comprising means for performing at least one raster image processing operation.

69. The controller of claim 51 in which the data content corresponds to an output job, the controller further comprising means for queuing and storing one or more output jobs to be provided to the output device.

70. The controller of claim 51 further comprising means for storing one or more components associated with one or more output devices.

71. The controller of claim 51 further comprising means for obtaining authentication information from the information apparatus to authenticate permission for the information apparatus to access the selected output device.

72. A data output controller method that controls interaction between an information apparatus and a selected output device in connection with the selected output device rendering data content accessed from the information apparatus, comprising:

managing a wireless communication channel between the information apparatus and the selected output device;

providing to the information apparatus over the communication channel at least one component associated with the selected output device for enabling the data content to be rendered by the selected output device; and

receiving over the communication channel data content conformed at least in part with the at least one component; and

providing the at least partly conformed data content to the selected output

device to be rendered.

73. The method of claim 72 in which the at least one component is provided over the communication channel in response to the at least one component being identified as not available on the information apparatus.

74. The method of claim 72 in which the at least one component includes software code.

75. The method of claim 72 in which the at least one component includes a software application.

76. The method of claim 72 in which the at least one component relates to one or more of a device driver, a printer driver, an output driver, or a user interface.

77. The method of claim 72 in which the at least one component relates to one or more of device identification, device make, device model, device type, device input data format, device input language, device feature set, device specifications, device quality of service, device type of service, device availability of service, and device service fee, device authentication, device security, device resolution, device bit depth, device color space, device number of colors, device color table, and a device halftoning table.

78. The method of claim 72 further comprising searching for the information apparatus and establishing the communication channel with it once discovered in the search.

79. The method of claim D7 further comprising broadcasting availability of the selected output device together with the at least one component associated with the selected output device.

80. The method of claim 72 further comprising passively awaiting discovery by the information apparatus and establishing the communication channel with the information apparatus once discovered.

81. The method of claim 72 further providing authentication of the information apparatus or its operator.

82. The method of claim 72 further comprising calculating payment for the rendering of the data content by the output device.

83. The method of claim 72 further comprising processing payment for the rendering of the data content by the output device.

84. The method of claim 72 in which the wireless communication is a radio communication.

85. The method of claim 72 in which the selected output device relates to one of a printing device, a display device, a projection device and an audio output device.

86. The method of claim 72 further comprising processing and converting the at least partly conformed data content to an output data that is compatible with the selected output device.

87. The method of claim 72 further comprising converting the at least partly conformed data content to an output data that is compatible with one of an output device, a printer, a printer engine, an output engine, a display engine, or a printer controller.

88. The method of claim 72 further comprising performing at least one raster image processing operation.

89. The method of claim 72 in which the data content corresponds to an output job, the method further comprising queuing and storing one or more output jobs to be provided to the output device.

90. The method of claim 72 further comprising storing one or more components associated with one or more output devices.

91. The method of claim 72 further comprising obtaining authentication information from the information apparatus to authenticate permission for the information apparatus to access the selected output device.